EXHIBIT 9

HIGHLY CONFIDENTIAL- ATTORNEYS' EYES ONLY

1   UNITED STATES DISTRICT COURT

2   NORTHERN DISTRICT OF CALIFORNIA

3   SAN JOSE DIVISION

4

5   _____
)
6   CISCO SYSTEMS, INC.,   )
7   Plaintiff,   )
8   vs.   ) Case No.:
) 5:14-cv-05344-BLF(PSG)
9   ARISTA NETWORKS, INC.,   )
)
10   Defendant.   )
     _____)

11

12

13   ATTORNEYS' EYES ONLY - HIGHLY CONFIDENTIAL

14   VIDEOTAPED DEPOSITION OF ABHAY ROY

15   Palo Alto, California

16   Friday, December 18, 2015

17   Volume 1

18

19

20

21   Reported by:

22   RACHEL FERRIER

23   CSR No. 6948

24   Job No. 2200521

25   PAGES 1 - 232

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1	encounters a shorter version, they can expand it, and if	09:49AM
2	RIP is used further down the document, you can keep	09:49AM
3	saying router information protocol or you can shorthand	09:49AM
4	it, and, typically, at the first documents, you will	09:49AM
5	have both versions, which this is the shorthand for	09:49AM
6	that.	09:49AM
7	Q Are these capitalized letters actually part of	09:49AM
8	the CLI command or are they there for some different	09:49AM
9	reason?	09:49AM
10	MR. NEUKOM: Objection; vague and compound.	09:49AM
11	THE WITNESS: I mean, just looking at this, it's	09:49AM
12	hard to say. There's probably a more detailed document	09:49AM
13	on this command that can probably tell us more. Just by	09:49AM
14	looking at it, it's hard to say what it's trying to say.	09:50AM
15	BY MR. SILBERT:	09:50AM
16	Q You claim to be the person who authored the	09:50AM
17	command "bfd all-interfaces"; correct?	09:50AM
18	MR. NEUKOM: Objection; misstates prior	09:50AM
19	statements and calls for a legal conclusion.	09:50AM
20	THE WITNESS: So bfd all-interfaces is -- is --	09:50AM
21	looks like a broader implication for various protocols.	09:50AM
22	My involvement has been on OSPF site, and I have written	09:50AM
23	some code on OSPF, which makes use of bfd	09:50AM
24	all-interfaces.	09:50AM
25	Is that what you are asking?	09:50AM

1	BY MR. SILBERT:	09:50AM
2	Q Okay. Well, let me just understand.	09:50AM
3	Did -- is it true that you did not author the	09:50AM
4	command "bfd all-interfaces"?	09:50AM
5	MR. NEUKOM: Objection; calls for a legal	09:50AM
6	conclusion.	09:50AM
7	THE WITNESS: So bfd all-interfaces code I have	09:50AM
8	written for OSPF.	09:50AM
9	BY MR. SILBERT:	09:51AM
10	Q Okay. I'm sorry, did I -- were you finished?	09:51AM
11	A Yes.	09:51AM
12	Q Okay. Did you come up with the phrase	09:51AM
13	"bfd all-interfaces" or did someone else do that?	09:51AM
14	A So this is -- this is quite dated. My best	09:51AM
15	recollection is we actually looked at a variety of IPv6	09:51AM
16	protocols, and we were trying to figure out what could	09:51AM
17	be one of the -- one of the best ways to express this.	09:51AM
18	So this is more of a collaborative effort. I cannot	09:51AM
19	take credit of coming up with it. It's a team of	09:51AM
20	engineers actually who looked into it, how this fits	09:51AM
21	into the bigger -- bigger piece of organization of	09:51AM
22	commands, what makes sense, what is more aesthetically	09:51AM
23	correct in the -- in the correct scope and with the	09:51AM
24	choices we had and the team of engineers, I believe, who	09:51AM
25	came up with this.	09:51AM

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1	Q Okay. So if you can't take credit for coming up	09:51AM
2	with the phrase "bfd all-interfaces," who, to your	09:51AM
3	knowledge, on the team of engineers came up with that	09:52AM
4	phrase?	09:52AM
5	MR. NEUKOM: Objection; misstates prior	09:52AM
6	testimony.	09:52AM
7	THE WITNESS: Can't recollect exactly, was it one	09:52AM
8	engineer or was it a bunch of proposals we had and we	09:52AM
9	collectively said this -- this is the best thing to go	09:52AM
10	with.	09:52AM
11	BY MR. SILBERT:	09:52AM
12	Q Okay. So you don't know who came up with the	09:52AM
13	phrase "bfd all-interfaces"?	09:52AM
14	A I can't at this point, yeah.	09:52AM
15	Q Okay. But you do know, I believe you said, that	09:52AM
16	when the team of engineers was working, doing the work	09:52AM
17	that resulted in that phrase, they were consulting	09:52AM
18	protocols or industry standards; correct?	09:52AM
19	MR. NEUKOM: Objection; misstates prior	09:52AM
20	testimony.	09:52AM
21	THE WITNESS: So it's a team of engineers are	09:52AM
22	typically looking at what is the best way to express a	09:52AM
23	certain functionality, right? And they are trying to	09:52AM
24	come up with the best possible command-line interface,	09:52AM
25	and -- and we can get into sort of why and -- and what	09:52AM

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1	is the process and so on, right?	09:53AM
2	In Cisco, there is -- there is a team of people	09:53AM
3	who are part of alias called "parser police." What they	09:53AM
4	do is if you want to write a new command, you send them	09:53AM
5	your proposal. They review it. They will tell you that	09:53AM
6	you are not going in the right direction, because they	09:53AM
7	are guiding the overall architecture purity. They are	09:53AM
8	giving you the overall choice on how to sort of design	09:53AM
9	such things.	09:53AM
10	What I was trying to say is the team of engineers	09:53AM
11	write proposals, send it to parser police, for example,	09:53AM
12	for their governance, and what finally gets decided,	09:53AM
13	again, among engineers and the governance party, is what	09:53AM
14	developers implement at the end of the day.	09:53AM
15	(Discussion off the stenographic record.)	09:53AM
16	BY MR. SILBERT:	09:53AM
17	Q Okay. Understanding that you didn't come up with	09:54AM
18	the phrase bfd all-interfaces, you are familiar with	09:54AM
19	that CLI command; correct?	09:54AM
20	A Yes, I am.	09:54AM
21	MR. NEUKOM: Objection; compound.	09:54AM
22	BY MR. SILBERT:	09:54AM
23	Q Would a -- strike that.	09:54AM
24	Is it -- I just want to use the correct	09:54AM
25	terminology.	09:54AM

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 1        Would you say that it's system administrators who    09:54AM

 2   are entering CLI commands?  Should we call them "users"?   09:54AM

 3   What would make the most sense?                            09:54AM

 4        MR. NEUKOM:  Objection to form.                       09:55AM

 5        THE WITNESS:  I mean, any person who wants to         09:55AM

 6   configure a device, so you could choose any language.      09:55AM

 7   You could choose a "user."  You could choose "operator."   09:55AM

 8        MR. SILBERT:  Okay.                                   09:55AM

 9        THE WITNESS:  You could choose variety of             09:55AM

10   different titles.                                          09:55AM

11   BY MR. SILBERT:                                            09:55AM

12      Q   Okay.  If an operator wanted to enter this          09:55AM

13   command, what would he or she actually type into the       09:55AM

14   interface?                                                 09:55AM

15      A   So -- so when you --                                09:55AM

16        MR. NEUKOM:  Objection; vague.                        09:55AM

17        THE WITNESS:  -- when you said "this command,"        09:55AM

18   you will have to be a little bit more explicit, right?     09:55AM

19   because the document clearly says this command is          09:55AM

20   applicable for variety of different technologies.          09:55AM

21        So, first, you have to get to which technology        09:55AM

22   are you talking about, and then how do you configure       09:55AM

23   that, and how do you type in the right place.  It's        09:55AM

24   quite -- quite a bit to get to the question you are        09:55AM

25   asking, that what will he type.                            09:55AM
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1	Q Okay. Would you look at the page -- I want to	10:27AM
2	direct your attention to Section 2.10, and it's the page	10:27AM
3	number -- if you look at the bottom-right corner, those	10:27AM
4	little numbers on the bottom that lawyers call "Bates	10:27AM
5	numbers," it ends in 005.	10:28AM
6	A Yes, I see that.	10:28AM
7	Q Do you see where it says Section 2.10 "Content:	10:28AM
8	Command Clarity"?	10:28AM
9	A Yeah, I see that.	10:28AM
10	Q Under that heading, do you see where it says,	10:28AM
11	"Commands should be self-explanatory, so that a	10:28AM
12	relatively knowledgeable user can figure out the command	10:28AM
13	function from the command and on-line help without	10:28AM
14	having to scurry off to the manuals, or worse, consume	10:28AM
15	support resources."	10:28AM
16	Did I read that correctly?	10:28AM
17	A Yes.	10:28AM
18	Q Is that a principle that Cisco applies in naming	10:28AM
19	CLI commands?	10:28AM
20	MR. NEUKOM: Objection; lacks foundation,	10:28AM
21	document speaks for itself, and asked and answered.	10:28AM
22	THE WITNESS: So -- so your question is, again,	10:28AM
23	quite broad, Does Cisco do this? This document -- I	10:29AM
24	don't know the applicability of this to which operating	10:29AM
25	system or what software we are talking about, but if	10:29AM

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1	you -- if you -- if you are purely quoting this, the	10:29AM
2	first -- the first line of this document, it does	10:29AM
3	recommend the choice of commands should be	10:29AM
4	self-explanatory.	10:29AM
5	BY MR. SILBERT:	10:29AM
6	Q Is that a principle that you have used in naming	10:29AM
7	CLI commands?	10:29AM
8	MR. NEUKOM: Objection; vague and compound, asked	10:29AM
9	and answered.	10:29AM
10	THE WITNESS: You -- you do want to make smart	10:29AM
11	choices, choices which, as I answered earlier, makes	10:29AM
12	sense from -- from aesthetic perspective, makes sense	10:29AM
13	from the alignment and architectural perspective.	10:29AM
14	Self-explanatory is -- is quite tricky because	10:30AM
15	if -- if I really wanted to be self-explanatory, the	10:30AM
16	command will be quite long, right? So -- so the	10:30AM
17	challenge any developer has is: What is the command you	10:30AM
18	really want to do? And the principles -- which I said	10:30AM
19	earlier, I think those are the varying principles at	10:30AM
20	least I have used.	10:30AM
21	BY MR. SILBERT:	10:30AM
22	Q Okay. Let me direct your attention back to the	10:30AM
23	document, picking up where I left off reading. It says,	10:30AM
24	"What constitutes 'self-explanatory' will vary by your	10:30AM
25	target audience, so be prepared to defend that point to	10:30AM

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1	your reviewers. It is entirely possible that a	10:30AM
2	non-expert reviewer may find the command," quote,	10:30AM
3	"forward-peak-cell-rate-clp1," unquote, "offensively	10:30AM
4	complex, but the point can be made that this will be the	10:30AM
5	only acceptable syntax for the ATM community based on	10:30AM
6	the vocabulary and culture of that user group."	10:31AM
7	And I'll stop reading there.	10:31AM
8	Are you familiar with that command that's in	10:31AM
9	quotation marks there?	10:31AM
10	A No, I'm not.	10:31AM
11	Q Okay. Do you have any reason to disagree that	10:31AM
12	the point could be made that that command would be the	10:31AM
13	only acceptable syntax for the ATM community based on	10:31AM
14	the vocabulary and culture of that user group?	10:31AM
15	MR. NEUKOM: Objection; lacks foundation.	10:31AM
16	THE WITNESS: I'm not familiar with what this	10:31AM
17	command is, but purely going by the text, if -- if some	10:31AM
18	developer thought that is the only way to write that	10:31AM
19	command, I think that is what it's trying to capture.	10:31AM
20	BY MR. SILBERT:	10:31AM
21	Q And are you aware of other CLI commands used by	10:31AM
22	Cisco where a developer thought that the command used by	10:31AM
23	Cisco was the only acceptable syntax for the user group	10:31AM
24	based on the vocabulary and culture of the group?	10:32AM
25	MR. NEUKOM: Objection; misstates the witness's	10:32AM

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1	prior testimony, lack of foundation, calls for	10:32AM
2	speculation.	10:32AM
3	THE WITNESS: Yes, it's a broad question. I	10:32AM
4	can't -- I can't tell you any command particular.	10:32AM
5	Again, if you have something specific, I can possibly	10:32AM
6	look at some documents and talk.	10:32AM
7	BY MR. SILBERT:	10:32AM
8	Q When you have named CLI commands at Cisco, did	10:32AM
9	you take into account the vocabulary and culture of the	10:32AM
10	user group who would be using the command?	10:32AM
11	MR. NEUKOM: Objection; vague and compound.	10:32AM
12	THE WITNESS: So the way I have designed the --	10:32AM
13	the commands -- I think I already explained, right? --	10:32AM
14	you typically look at the content, look at the feature,	10:32AM
15	look at what is being asked, and you start with your	10:32AM
16	best guess. Your best guess, again, may or may not be	10:32AM
17	the best which will eventually have the light of the	10:32AM
18	day, but you go with your knowledge and your judgment.	10:32AM
19	MR. SILBERT: Right.	10:33AM
20	Q And in applying your knowledge and judgment, did	10:33AM
21	you take into account the vocabulary and culture of the	10:33AM
22	user group that would use the command?	10:33AM
23	MR. NEUKOM: Objection; asked and answered, vague	10:33AM
24	and compound.	10:33AM
25	THE WITNESS: So vocabulary and culture of user	10:33AM

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1	group requires people to be plugged in with the	10:33AM
2	vocabulary and culture, and a lot of this is really	10:33AM
3	marketing-type people who are more plugged in.	10:33AM
4	Engineers are typically hiding in a cube doing	10:33AM
5	their own stuff. They may not even be as plugged in, so	10:33AM
6	it -- it's hard to put that in what you are designing.	10:33AM
7	The first instinct, including me and other	10:33AM
8	engineers, is you look at what is being asked and you	10:33AM
9	come with command which actually aligns with rest of the	10:33AM
10	things.	10:33AM
11	BY MR. SILBERT:	10:33AM
12	Q So your testimony is that, with respect to the	10:34AM
13	commands that you have named, you have not taken into	10:34AM
14	consideration the vocabulary and culture of the user	10:34AM
15	group that would use the command?	10:34AM
16	MR. NEUKOM: Objection; calls for speculation,	10:34AM
17	vague, compound, and asked and answered.	10:34AM
18	THE WITNESS: So for most of my work, I would say	10:34AM
19	I have relied on -- on the requirements and the	10:34AM
20	documents at hand and not at the culture and the user	10:34AM
21	group.	10:34AM
22	BY MR. SILBERT:	10:34AM
23	Q When you say "the requirements," are you	10:34AM
24	referring to the specifications or protocols relating to	10:34AM
25	that feature?	10:34AM